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NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	JUL 02	LMEDLINE coverage updated
NEWS 3	JUL 02	SCISEARCH enhanced with complete author names
NEWS 4	JUL 02	CHEMCATS accession numbers revised
NEWS 5	JUL 02	CA/CAplus enhanced with utility model patents from China
NEWS 6	JUL 16	CAplus enhanced with French and German abstracts
NEWS 7	JUL 18	CA/CAplus patent coverage enhanced
NEWS 8	JUL 26	USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS 9	JUL 30	USGENE now available on STN
NEWS 10	AUG 06	CAS REGISTRY enhanced with new experimental property tags
NEWS 11	AUG 06	FSTA enhanced with new thesaurus edition
NEWS 12	AUG 13	CA/CAplus enhanced with additional kind codes for granted patents
NEWS 13	AUG 20	CA/CAplus enhanced with CAS indexing in pre-1907 records
NEWS 14	AUG 27	Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
NEWS 15	AUG 27	USPATOLD now available on STN
NEWS 16	AUG 28	CAS REGISTRY enhanced with additional experimental spectral property data
NEWS 17	SEP 07	STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS 18	SEP 13	FORIS renamed to SOFIS
NEWS 19	SEP 13	INPADOCDB enhanced with monthly SDI frequency
NEWS 20	SEP 17	CA/CAplus enhanced with printed CA page images from 1967-1998
NEWS 21	SEP 17	CAplus coverage extended to include traditional medicine patents
NEWS 22	SEP 24	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 23	OCT 02	CA/CAplus enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS 24	OCT 19	BEILSTEIN updated with new compounds
NEWS 25	NOV 15	Derwent Indian patent publication number format enhanced
NEWS 26	NOV 19	WPIX enhanced with XML display format

NEWS EXPRESS 19 SEPTEMBER 2007: CURRENT WINDOWS VERSION IS V8.2, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8

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* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 08:08:01 ON 21 NOV 2007

=> file reg
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.42	0.42

FILE 'REGISTRY' ENTERED AT 08:08:52 ON 21 NOV 2007
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 20 NOV 2007 HIGHEST RN 955158-15-3
DICTIONARY FILE UPDATES: 20 NOV 2007 HIGHEST RN 955158-15-3

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TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

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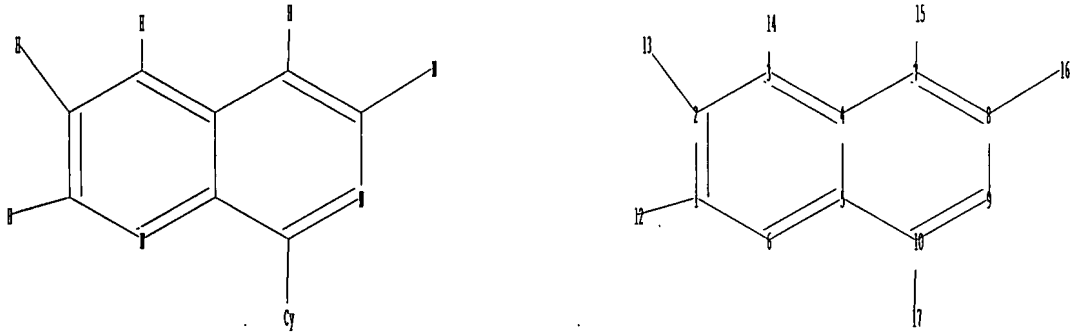
REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\Stnexp\Queries\10538355.str



chain nodes :
12 13 14 15 17
ring nodes :
1 2 3 4 5 6 7 8 9 10 16
chain bonds :
1-12 2-13 3-14 7-15 8-16 10-17
ring bonds :
1-2 1-6 2-3 3-4 4-5 4-7 5-6 5-10 7-8 8-9 9-10
exact/norm bonds :
8-16 10-17

exact bonds :
1-12 2-13 3-14 7-15
normalized bonds :
1-2 1-6 2-3 3-4 4-5 4-7 5-6 5-10 7-8 8-9 9-10
isolated ring systems :
containing 1 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:Atom 17:Atom

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
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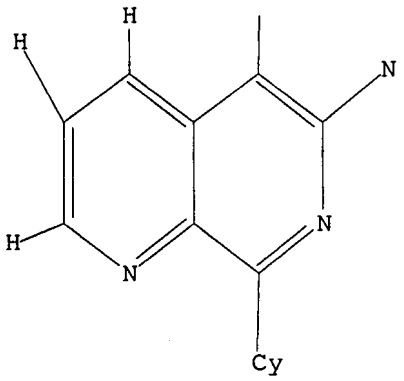

Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SEARCH INITIATED 08:09:09 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 104 TO ITERATE

100.0% PROCESSED 104 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1469 TO 2691
PROJECTED ANSWERS: 1 TO 80

L2 1 SEA SSS SAM L1

=> s l1 full
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FULL SCREEN SEARCH COMPLETED - 2232 TO ITERATE

100.0% PROCESSED 2232 ITERATIONS 64 ANSWERS
SEARCH TIME: 00.00.01

L3 64 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	172.10	172.52

FILE 'CAPLUS' ENTERED AT 08:09:17 ON 21 NOV 2007
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FILE COVERS 1907 - 21 Nov 2007 VOL 147 ISS 22
FILE LAST UPDATED: 20 Nov 2007 (20071120/ED)

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http://www.cas.org/infopolicy.html

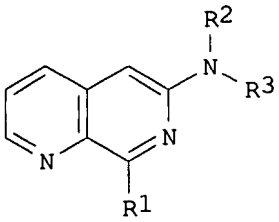
=> s l3 full
L4 1 L3

=> d ibib abs hitstr tot

L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:534201 CAPLUS
DOCUMENT NUMBER: 141:71530
TITLE: Preparation of [1,7]naphthyridines as PDE4 inhibitors
INVENTOR(S): Denholm, Alastair; Keller, Thomas Hugo; Mccarthy, Clive; Press, Neil John; Taylor, Roger John
PATENT ASSIGNEE(S): Novartis Ag, Switz.; Novartis Pharma GmbH
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004055013	A1	20040701	WO 2003-EP14263	20031215
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT, LU, LV, MA, MD, MK, MN, MX, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SE, SG, SK, SY, TJ, TM, TN, TR, TT, UA, US, UZ, VC, VN, YU, ZA, ZW				
RW: AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
CA 2505405	A1	20040701	CA 2003-2505405	20031215
AU 2003293886	A1	20040709	AU 2003-293886	20031215
EP 1575950	A1	20050921	EP 2003-789283	20031215
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
BR 2003017330 A 20051108 BR 2003-17330 20031215
CN 1726215 A 20060125 CN 2003-80106300 20031215
JP 2006511539 T 20060406 JP 2004-560419 20031215
EP 1777226 A1 20070425 EP 2007-100446 20031215
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LI, LU, MC, NL, PT, RO, SE, SI, SK, TR
US 2006058338 A1 20060316 US 2005-538355 20050808
PRIORITY APPLN. INFO.: GB 2002-29281 A 20021216
EP 2003-789283 A3 20031215
WO 2003-EP14263 W 20031215
OTHER SOURCE(S): MARPAT 141:71530
GI



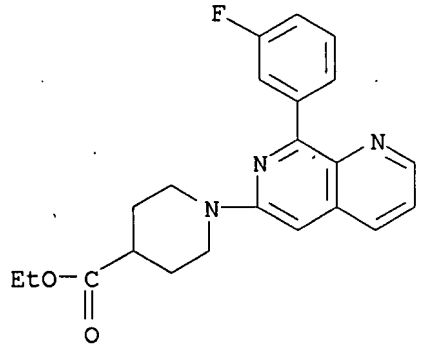
I

AB The title compds. [I; R1 = aryl having up to 10 carbon atoms; NR2R3 = heterocyclyl having up to 10 ring atoms and having 1-4 heteroatoms in the ring system; in free or salt form] which are useful for treating conditions mediated by of phosphodiesterase type 4 or the down-regulation or inhibition of TNF-α release, particularly obstructive or inflammatory airways diseases, were prepared E.g., a 3-step synthesis of 3-[6-(3-hydroxypyrrolidin-1-yl)-[1,7]naphthyridin-8-yl]benzonitrile, starting from 6-amino-8-bromo-1,7-naphthyridine and 3-cyanophenylboronic acid, which showed IC50 of 1 nM for inhibition of PDE4D, was given. Pharmaceutical compns. that contain compds. I and processes for preparing the compds. I are claimed.

IT 713145-28-9P 713145-30-3P 713145-47-2P
713145-56-3P 713145-62-1P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of [1,7]naphthyridines as PDE4 inhibitors)

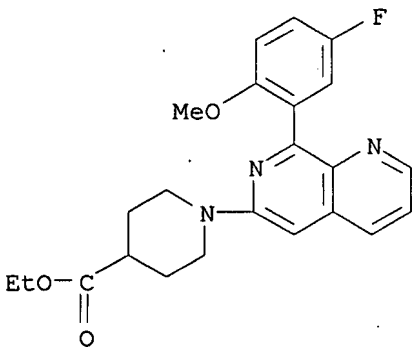
RN 713145-28-9 CAPLUS

CN 4-Piperidinecarboxylic acid, 1-[8-(3-fluorophenyl)-1,7-naphthyridin-6-yl]-, ethyl ester (CA INDEX NAME)

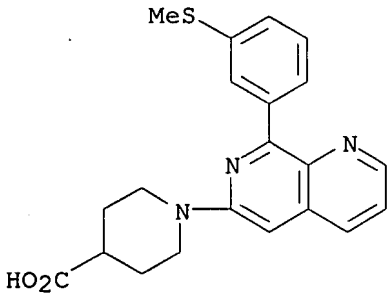


RN 713145-30-3 CAPLUS

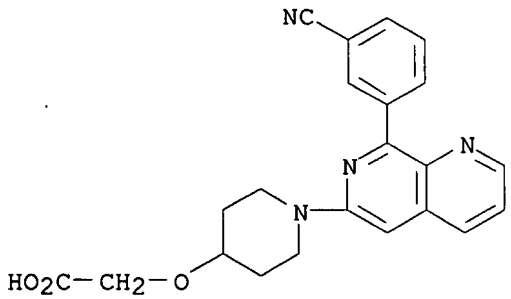
CN 4-Piperidinecarboxylic acid, 1-[8-(5-fluoro-2-methoxyphenyl)-1,7-naphthyridin-6-yl]-, ethyl ester (CA INDEX NAME)



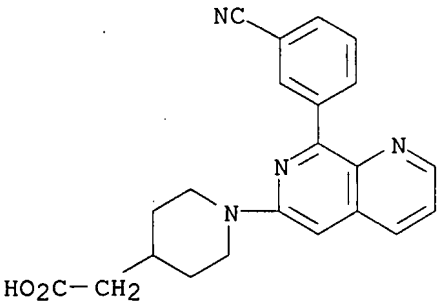
RN 713145-47-2 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-[3-(methylthio)phenyl]-1,7-naphthyridin-6-yl]- (CA INDEX NAME)



RN 713145-56-3 CAPLUS
CN Acetic acid, [[1-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]-4-piperidinyl]oxy]- (9CI) (CA INDEX NAME)



RN 713145-62-1 CAPLUS
CN 4-Piperidineacetic acid, 1-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]- (CA INDEX NAME)



IT 713145-07-4P 713145-08-5P 713145-09-6P
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713145-16-5P 713145-17-6P 713145-18-7P
713145-19-8P 713145-20-1P 713145-21-2P
713145-22-3P 713145-23-4P 713145-24-5P
713145-25-6P 713145-26-7P 713145-27-8P
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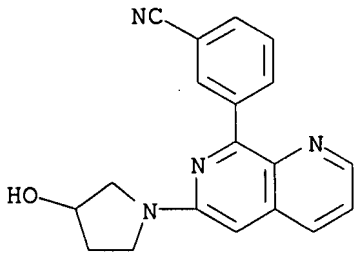
713145-64-3P 713145-65-4P 713145-66-5P
713145-67-6P 713145-68-7P 713145-69-8P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of [1,7]naphthyridines as PDE4 inhibitors)

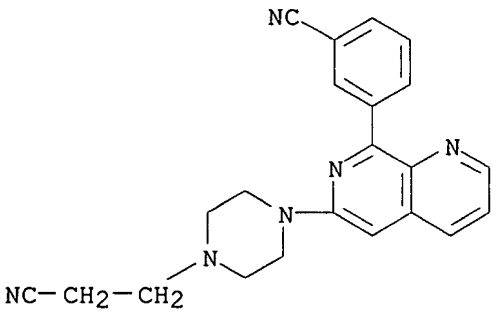
RN 713145-07-4 CAPLUS

CN Benzonitrile, 3-[6-(3-hydroxy-1-pyrrolidinyl)-1,7-naphthyridin-8-yl]- (CA INDEX NAME)



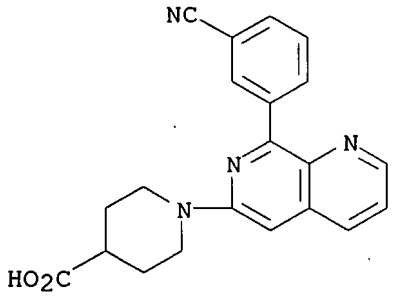
RN 713145-08-5 CAPLUS

CN 1-Piperazinepropanenitrile, 4-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]-, monohydrochloride (9CI) (CA INDEX NAME)



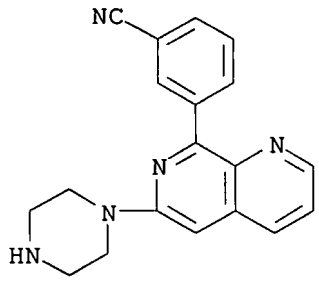
● HCl

RN 713145-09-6 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]-, lithium salt (9CI) (CA INDEX NAME)



● Li

RN 713145-10-9 CAPLUS
CN Benzonitrile, 3-[6-(1-piperazinyl)-1,7-naphthyridin-8-yl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 713145-11-0 CAPLUS
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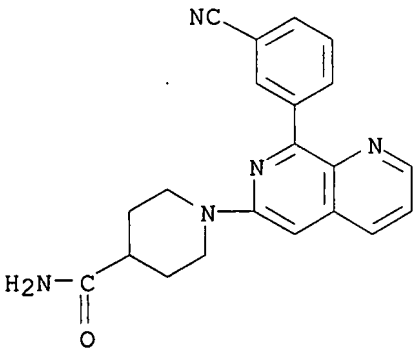
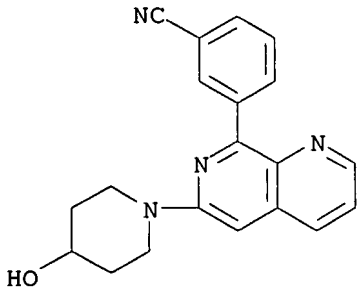
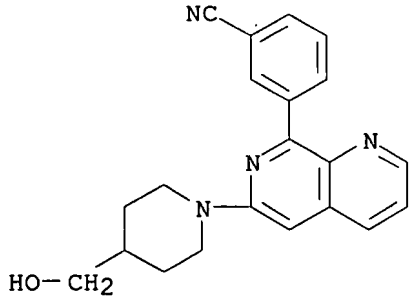


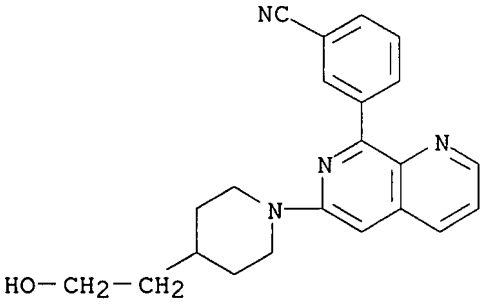
RN 713145-12-1 CAPLUS
CN Benzonitrile, 3-[6-(4-hydroxy-1-piperidinyl)-1,7-naphthyridin-8-yl]- (CA INDEX NAME)



RN 713145-13-2 CAPLUS
CN Benzonitrile, 3-[6-[4-(hydroxymethyl)-1-piperidinyl]-1,7-naphthyridin-8-yl]- (CA INDEX NAME)

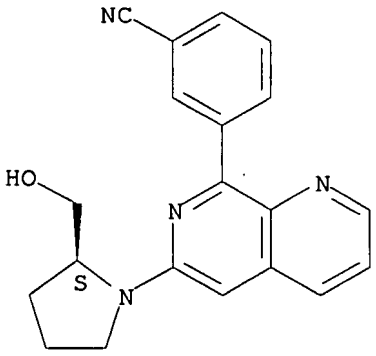


RN 713145-14-3 CAPLUS
CN Benzonitrile, 3-[6-[4-(2-hydroxyethyl)-1-piperidinyl]-1,7-naphthyridin-8-yl]- (CA INDEX NAME)

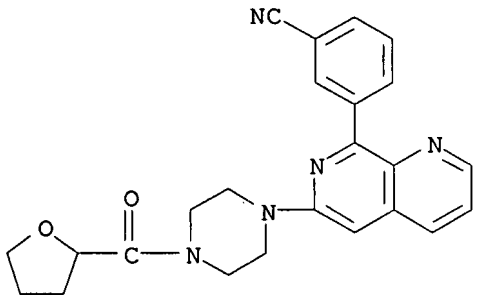


RN 713145-15-4 CAPLUS
CN Benzonitrile, 3-[6-[(2S)-2-(hydroxymethyl)-1-pyrrolidinyl]-1,7-naphthyridin-8-yl]- (CA INDEX NAME)

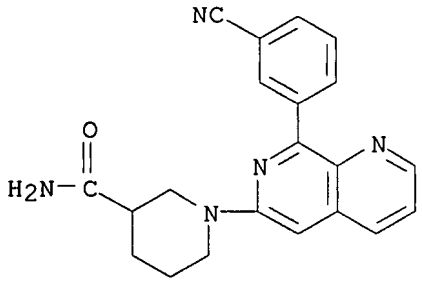
Absolute stereochemistry.



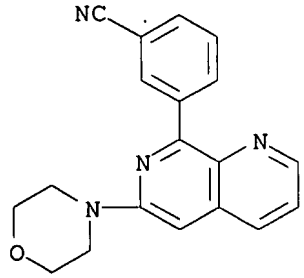
RN 713145-16-5 CAPLUS
CN Piperazine, 1-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]-4-[(tetrahydro-2-furanyl)carbonyl]- (9CI) (CA INDEX NAME)



RN 713145-17-6 CAPLUS
CN 3-Piperidinecarboxamide, 1-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]- (CA INDEX NAME)

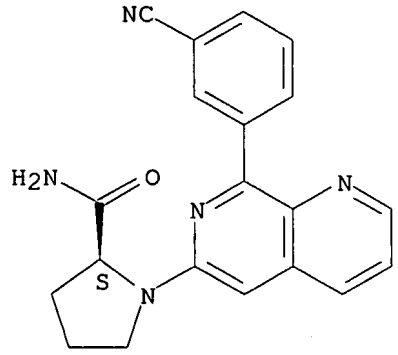


RN 713145-18-7 CAPLUS
CN Benzonitrile, 3-[6-(4-morpholinyl)-1,7-naphthyridin-8-yl]- (CA INDEX NAME)



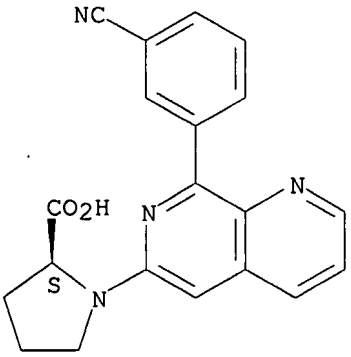
RN 713145-19-8 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

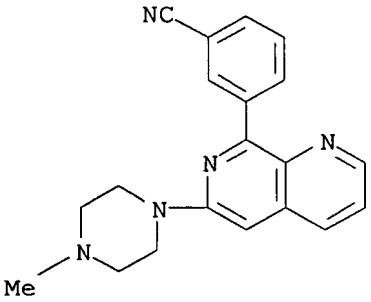


RN 713145-20-1 CAPLUS
CN L-Proline, 1-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]- (CA INDEX NAME)

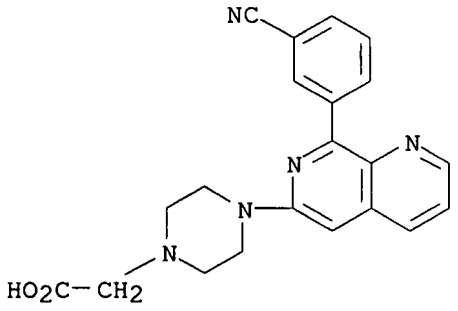
Absolute stereochemistry.



RN 713145-21-2 CAPLUS
CN Benzonitrile, 3-[6-(4-methyl-1-piperazinyl)-1,7-naphthyridin-8-yl]- (CA INDEX NAME)

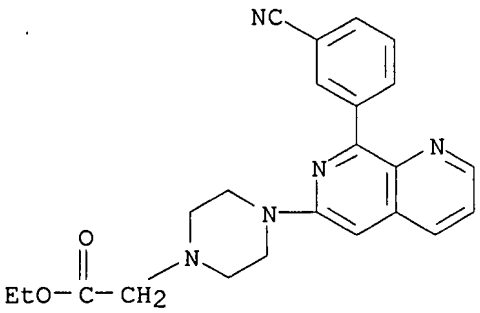


RN 713145-22-3 CAPLUS
CN 1-Piperazineacetic acid, 4-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]-, lithium salt (9CI) (CA INDEX NAME)

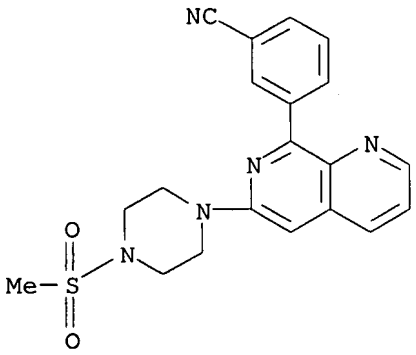


● Li

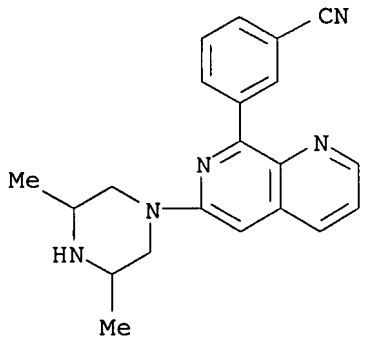
RN 713145-23-4 CAPLUS
CN 1-Piperazineacetic acid, 4-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]-, ethyl ester (CA INDEX NAME)



RN 713145-24-5 CAPLUS
CN Piperazine, 1-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]-4-(methylsulfonyl)- (9CI) (CA INDEX NAME)

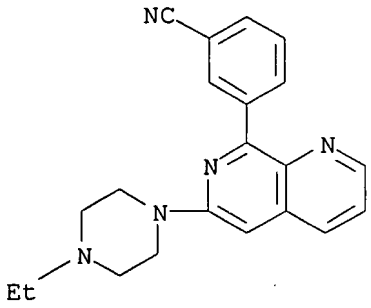


RN 713145-25-6 CAPLUS
CN Benzonitrile, 3-[6-(3,5-dimethyl-1-piperazinyl)-1,7-naphthyridin-8-yl]-, monohydrochloride (9CI) (CA INDEX NAME)

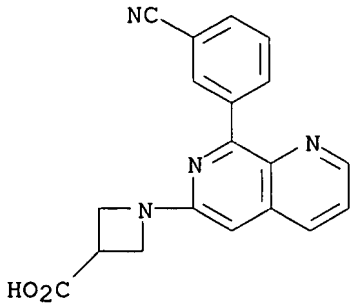


● HCl

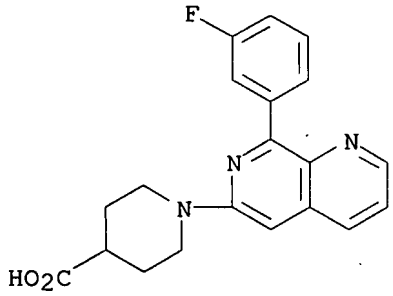
RN 713145-26-7 CAPLUS
CN Benzonitrile, 3-[6-(4-ethyl-1-piperazinyl)-1,7-naphthyridin-8-yl]- (CA INDEX NAME)



RN 713145-27-8 CAPLUS
CN 3-Azetidinecarboxylic acid, 1-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]- (CA INDEX NAME)

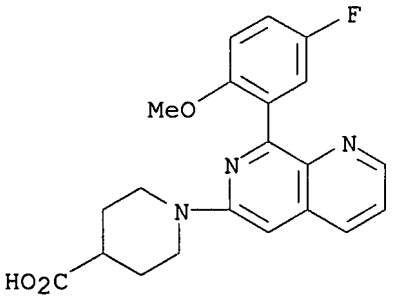


RN 713145-29-0 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-(3-fluorophenyl)-1,7-naphthyridin-6-yl]-, sodium salt (9CI) (CA INDEX NAME)



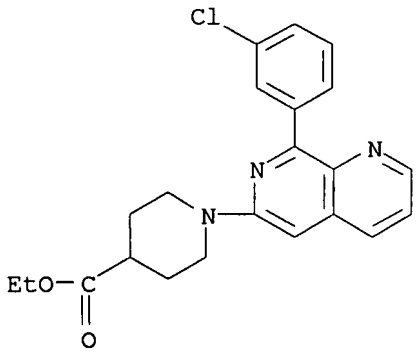
● Na

RN 713145-31-4 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-(5-fluoro-2-methoxyphenyl)-1,7-naphthyridin-6-yl]-, potassium salt (9CI) (CA INDEX NAME)

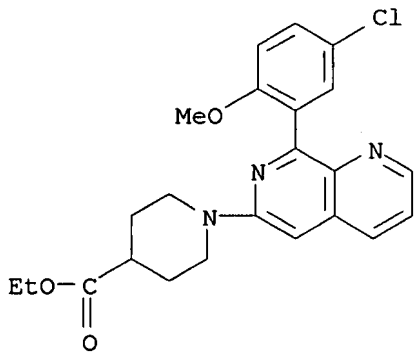


● K

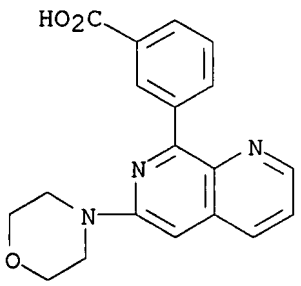
RN 713145-32-5 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-(3-chlorophenyl)-1,7-naphthyridin-6-yl]-, ethyl ester (CA INDEX NAME)



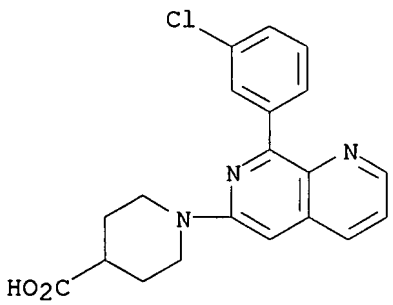
RN 713145-33-6 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-(5-chloro-2-methoxyphenyl)-1,7-naphthyridin-6-yl]-, ethyl ester (CA INDEX NAME)



RN 713145-34-7 CAPLUS
CN Benzoic acid, 3-[6-(4-morpholinyl)-1,7-naphthyridin-8-yl]- (CA INDEX NAME)

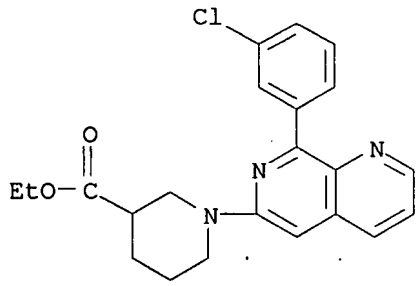


RN 713145-35-8 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-(3-chlorophenyl)-1,7-naphthyridin-6-yl]-, sodium salt (9CI) (CA INDEX NAME)

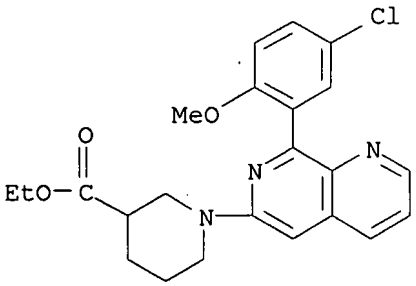


● Na

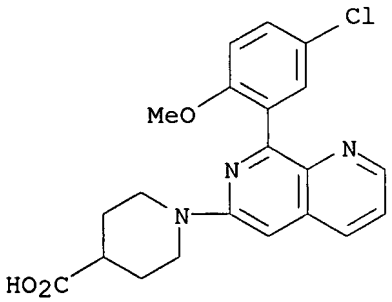
RN 713145-36-9 CAPLUS
CN 3-Piperidinecarboxylic acid, 1-[8-(3-chlorophenyl)-1,7-naphthyridin-6-yl]-, ethyl ester (CA INDEX NAME)



RN 713145-37-0 CAPLUS
CN 3-Piperidinecarboxylic acid, 1-[8-(5-chloro-2-methoxyphenyl)-1,7-naphthyridin-6-yl]-, ethyl ester (CA INDEX NAME)

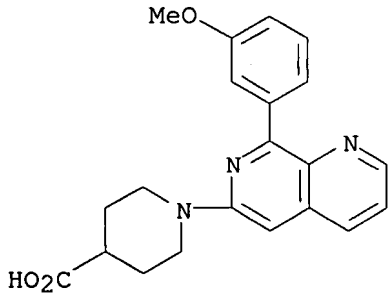


RN 713145-38-1 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-(5-chloro-2-methoxyphenyl)-1,7-naphthyridin-6-yl]-, sodium salt (9CI) (CA INDEX NAME)

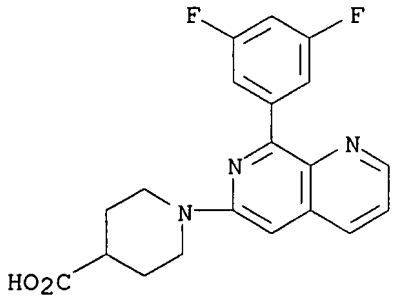


● Na

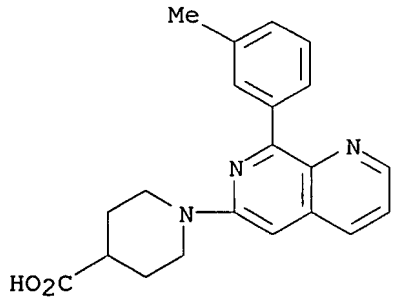
RN 713145-39-2 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-(3-methoxyphenyl)-1,7-naphthyridin-6-yl]- (CA INDEX NAME)



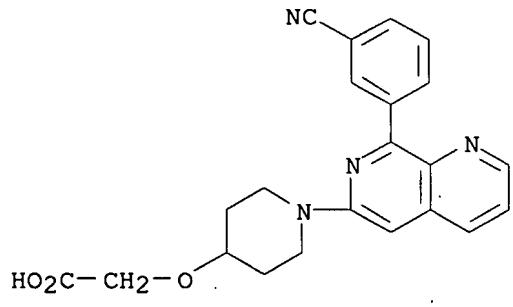
RN 713145-40-5 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-(3,5-difluorophenyl)-1,7-naphthyridin-6-yl]- (CA INDEX NAME)



RN 713145-41-6 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-(3-methylphenyl)-1,7-naphthyridin-6-yl]- (CA INDEX NAME)



RN 713145-42-7 CAPLUS
CN Acetic acid, [[1-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]-4-piperidinyl]oxy]-, potassium salt (9CI) (CA INDEX NAME)



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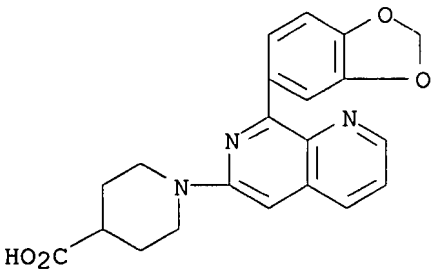
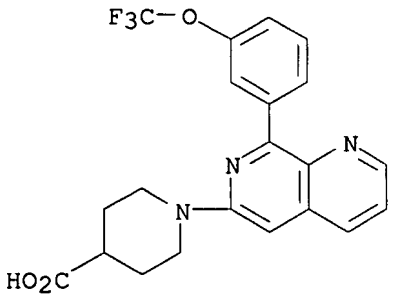
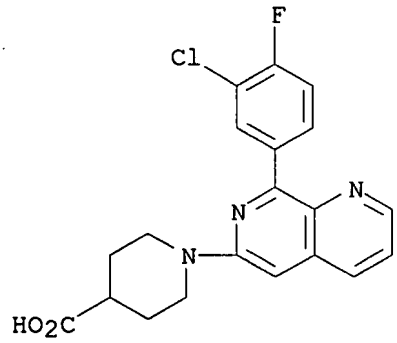
RN 713145-43-8 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-(1,3-benzodioxol-5-yl)-1,7-naphthyridin-6-yl]- (CA INDEX NAME)



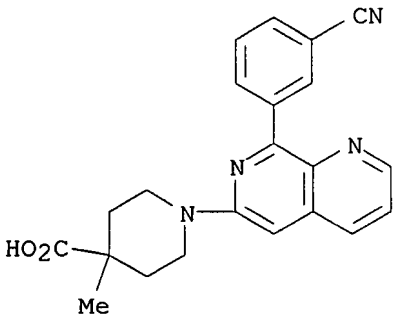
RN 713145-44-9 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-[3-(trifluoromethoxy)phenyl]-1,7-naphthyridin-6-yl]- (CA INDEX NAME)



RN 713145-45-0 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-(3-chloro-4-fluorophenyl)-1,7-naphthyridin-6-yl]- (CA INDEX NAME)

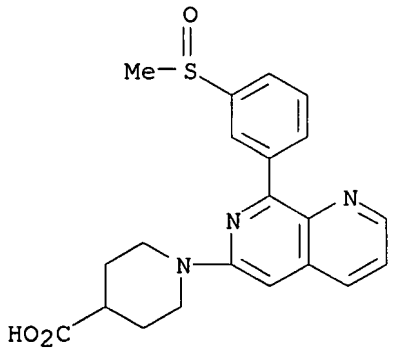


RN 713145-46-1 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]-4-methyl-, potassium salt (9CI) (CA INDEX NAME)

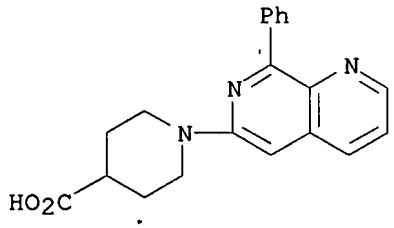


● K

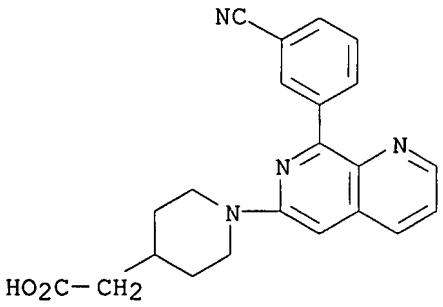
RN 713145-48-3 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-[3-(methylsulfinyl)phenyl]-1,7-naphthyridin-6-yl]- (CA INDEX NAME)



RN 713145-49-4 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-(8-phenyl-1,7-naphthyridin-6-yl)- (CA INDEX NAME)

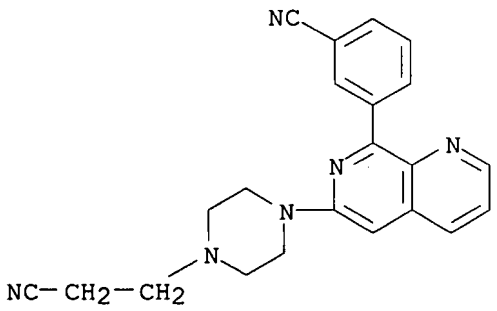


RN 713145-50-7 CAPLUS
CN 4-Piperidineacetic acid, 1-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]-, potassium salt (9CI) (CA INDEX NAME)

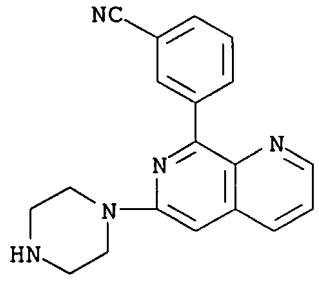


● K

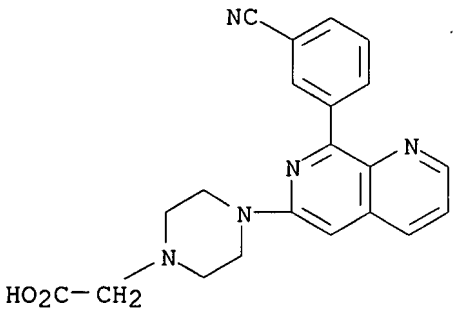
RN 713145-63-2 CAPLUS
CN 1-Piperazinepropanenitrile, 4-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]- (CA INDEX NAME)



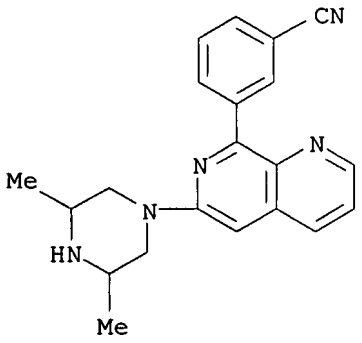
RN 713145-64-3 CAPLUS
CN Benzonitrile, 3-[6-(1-piperazinyl)-1,7-naphthyridin-8-yl]- (CA INDEX NAME)



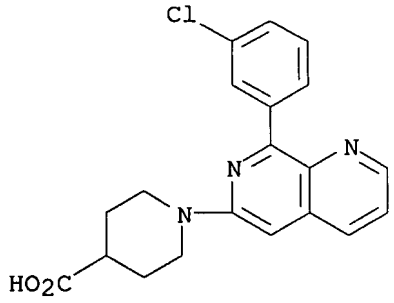
RN 713145-65-4 CAPLUS
CN 1-Piperazineacetic acid, 4-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]- (CA INDEX NAME)



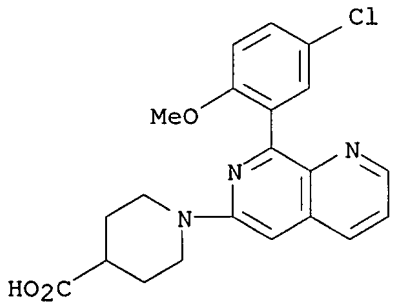
RN 713145-66-5 CAPLUS
CN Benzonitrile, 3-[6-(3,5-dimethyl-1-piperazinyl)-1,7-naphthyridin-8-yl]- (CA INDEX NAME)



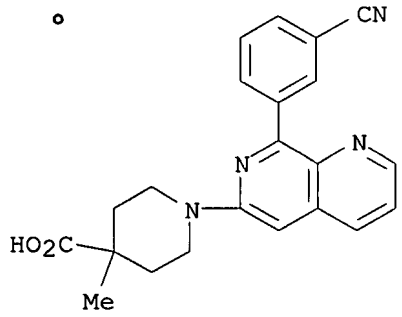
RN 713145-67-6 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-(3-chlorophenyl)-1,7-naphthyridin-6-yl]- (CA INDEX NAME)



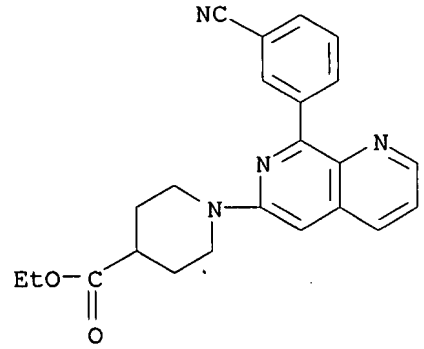
RN 713145-68-7 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-(5-chloro-2-methoxyphenyl)-1,7-naphthyridin-6-yl]- (CA INDEX NAME)



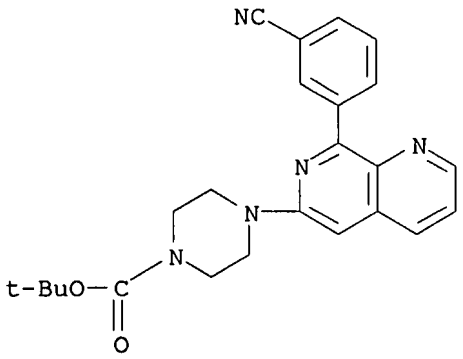
RN 713145-69-8 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]-4-methyl- (CA INDEX NAME)



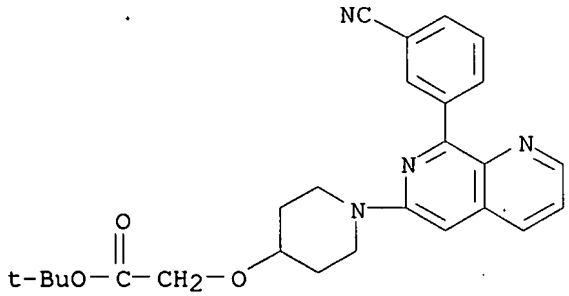
IT 713145-51-8P 713145-52-9P 713145-55-2P
713145-57-4P 713145-58-5P 713145-59-6P
713145-60-9P 713145-61-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of [1,7]naphthyridines as PDE4 inhibitors)
RN 713145-51-8 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]-, ethyl ester (CA INDEX NAME)



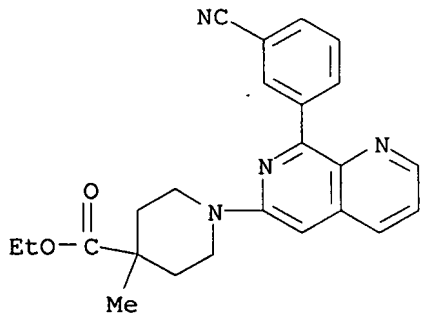
RN 713145-52-9 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



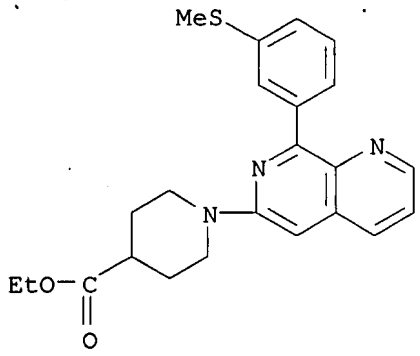
RN 713145-55-2 CAPLUS
CN Acetic acid, [[1-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]-4-piperidinyl]oxy]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



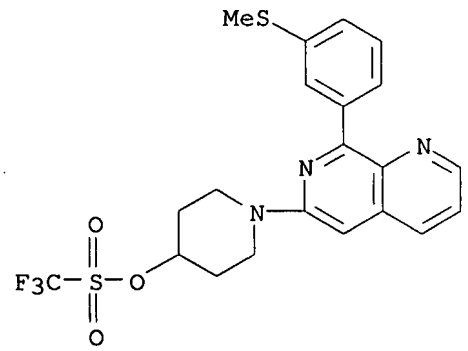
RN 713145-57-4 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]-4-methyl-, ethyl ester (CA INDEX NAME)



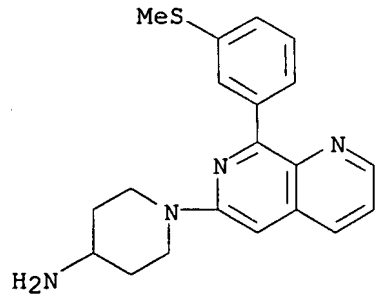
RN 713145-58-5 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[8-[3-(methylthio)phenyl]-1,7-naphthyridin-6-yl]-, ethyl ester (CA INDEX NAME)



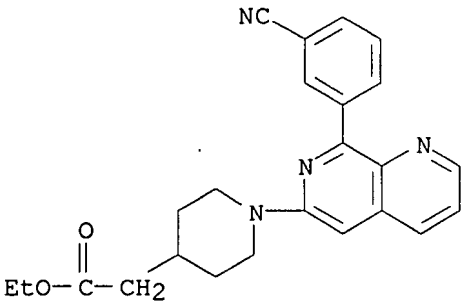
RN 713145-59-6 CAPLUS
CN Methanesulfonic acid, trifluoro-, 1-[8-[3-(methylthio)phenyl]-1,7-naphthyridin-6-yl]-4-piperidinyl ester (9CI) (CA INDEX NAME)



RN 713145-60-9 CAPLUS
CN 4-Piperidinamine, 1-[8-[3-(methylthio)phenyl]-1,7-naphthyridin-6-yl]- (CA INDEX NAME)



RN 713145-61-0 CAPLUS
CN 4-Piperidineacetic acid, 1-[8-(3-cyanophenyl)-1,7-naphthyridin-6-yl]-, ethyl ester (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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(FILE 'HOME' ENTERED AT 08:08:01 ON 21 NOV 2007)

FILE 'REGISTRY' ENTERED AT 08:08:52 ON 21 NOV 2007
L1 STRUCTURE UPLOADED
L2 1 S L1
L3 64 S L1 FULL

FILE 'CAPLUS' ENTERED AT 08:09:17 ON 21 NOV 2007
L4 1 S L3 FULL

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	5.74	178.26
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.78	-0.78

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NEWS 4	JUL 02	CHEMCATS accession numbers revised
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NEWS 17	SEP 07	STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS 18	SEP 13	FORIS renamed to SOFIS
NEWS 19	SEP 13	INPADOCDB enhanced with monthly SDI frequency
NEWS 20	SEP 17	CA/CAplus enhanced with printed CA page images from 1967-1998
NEWS 21	SEP 17	CAplus coverage extended to include traditional medicine patents
NEWS 22	SEP 24	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 23	OCT 02	CA/CAplus enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS 24	OCT 19	BEILSTEIN updated with new compounds
NEWS 25	NOV 15	Derwent Indian patent publication number format enhanced
NEWS 26	NOV 19	WPIX enhanced with XML display format

NEWS EXPRESS 19 SEPTEMBER 2007: CURRENT WINDOWS VERSION IS V8.2, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

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FILE LAST UPDATED: 20 Nov 2007 (20071120/ED)

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L1        28110 PHOSPHODIESTERASE
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L3        1674 L2 AND INHIBIT?

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L4         151 L3 AND ISOENZYM?

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SL4 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).
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L5          15 L4 AND ASSAY?

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L5 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:789095 CAPLUS
DOCUMENT NUMBER: 147:181512
TITLE: Screening for regulators of intracellular calcium levels for control of NFAT transcription factors
INVENTOR(S): Rao, Anjana; Feske, Stefan; Hogan, Patrick; Gwack, Yousang
PATENT ASSIGNEE(S): Cbr Institute for Biomedical Research, Inc., USA
SOURCE: PCT Int. Appl., 138pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007081804	A2	20070719	WO 2007-US280	20070105
WO 2007081804	A9	20070907		

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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.: US 2006-756934P P 20060105

AB Methods for screening of modulators of intracellular calcium levels that can be used to regulate NFAT activity without the side effects of calcineurin inhibitors are described. The drugs target the system of calcium uptake that regulates calcineurin. Compds. that affect intracellular calcium levels can be assayed by their effects on NFAT, e.g. by use of an NFAT-dependent reporter gene, or by measuring NFAT binding to its binding site. Methods of measuring NFAT levels can also be used to diagnose disease including unexplained immunodeficiency. Alternatively, other calcium entry-mediated processes can be used as markers in screening. The role of calcium transporters is identified by a combination of mapping of genes associated with severe combined immunodeficiency in humans, and RNAi screening for effectors of calcium levels and NFAT nuclear transport in Drosophila. Human homologs of these genes were then identified.

L5 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:333039 CAPLUS
DOCUMENT NUMBER: 146:358872
TITLE: Pyrano[2,3-d]pyrimidines as nicotinic acid receptor agonists for the treatment of dyslipidemia and their preparation and pharmaceutical compositions
INVENTOR(S): Palani, Anandan; Su, Jing; Xiao, Dong; Huang, Xianhai; Rao, Ashwin U.; Chen, Xiao; Tang, Haiqun; Qin, Jun; Huang, Ying R.; Aslanian, Robert G.; McKittrick, Brian

A.; Degrado, Sylvia J.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 239pp., Cont.-in-part of U.S. Ser. No. 432,133.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2007066630	A1	20070322	US 2006-600216		20061115
US 2006264489	A1	20061123	US 2006-432133		20060511
PRIORITY APPLN. INFO.:			US 2005-681848P	P	20050517
			US 2005-715565P	P	20050909
			US 2005-731039P	P	20051028
			US 2006-432133	A2	20060511

OTHER SOURCE(S): MARPAT 146:358872
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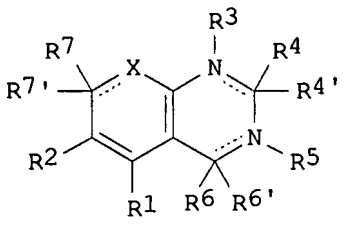

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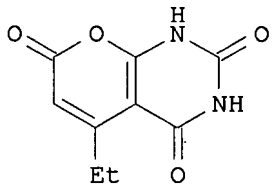

II

AB A compound having the general structure of formula I: Formula I or a pharmaceutically acceptable salt, solvate, ester, or tautomer thereof, or a pharmaceutically acceptable salt, solvate, ester, or tautomer thereof, are useful in treating diseases, disorders, or conditions such as metabolic syndrome and dyslipidemia. Compds. of formula I wherein dotted line represents a single or double bond; if dotted line between X and CR7R7' is single, X is O and NH and derivs.; if dotted line between X and CR7R7' is double X is N; R1 is H, (un)substituted alkyl, alkenyl, alkynyl, haloalkyl, cycloalkyl, etc.; R2 is H, halo, (un)substituted alkyl, haloalkyl, etc.; R1R2 together with the atoms they are attached to may form a 5- to 6-membered (hetero)cycloalkenyl ring; R3 is absent, H, (un)substituted alkyl, cycloalkyl, (hetero)aryl, etc.; R4' and R6' are absent when dotted lines to the nitrogens are double bond and R4 and R6 are independently H, alkyl, halo, OH and derivs., NH2 and derivs., etc.; if dotted lines are single bond, R4R4' and R6R6' taken together is =O; R5 is absent, H, alkyl, alkynyl, alkylene-CO2-alkyl, etc.; R7R7' taken together is =O, when dotted line to X is single bond; R7 and R7' is H, alkyl, and (hetero)aryl; R7' is absent when dotted line to X is double bond; R7 is OH and derivs.; and their pharmaceutically acceptable salts, solvates, esters, and tautomers are claimed. Example compound II was prepared by cyclization of Me propionylacetate with barbituric acid. All the invention compds. were evaluated for their nicotinic acid receptor agonistic activity. From the assay, it was determined that several compds. exhibited cAMP EC50 value of 100 nM or less.

L5 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1225392 CAPLUS
DOCUMENT NUMBER: 146:7973
TITLE: Pyrano[2,3-d]pyrimidines as nicotinic acid receptor agonists for the treatment of dyslipidemia and their

preparation and pharmaceutical compositions

INVENTOR(S): Palani, Anandan; Su, Jing; Xiao, Dong; Huang, Xianhai; Rao, Ashwin U.; Chen, Xiao; Tang, Haiqun; Qin, Jun; Huang, Ying; Aslanian, Robert G.; Mckittrick, Brian

PATENT ASSIGNEE(S): Schering Corporation, USA

SOURCE: PCT Int. Appl., 213pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006124490	A2	20061123	WO 2006-US18186	20060511
WO 2006124490	A3	20070308		

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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:
US 2005-681848P P 20050517
US 2005-715565P P 20050909
US 2005-731039P P 20051028

OTHER SOURCE(S): MARPAT 146:7973

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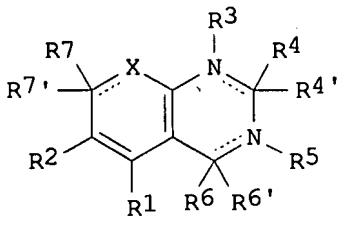

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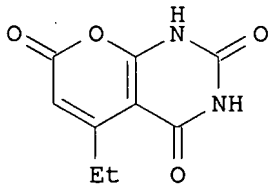

II

AB A compound having the general structure of formula I: Formula I or a pharmaceutically acceptable salt, solvate, ester, or tautomer thereof, or a pharmaceutically acceptable salt, solvate, ester, or tautomer thereof, are useful in treating diseases, disorders, or conditions such as metabolic syndrome and dyslipidemia. Compds. of formula I wherein dotted line represents a single or double bond; if dotted line between X and CR7R7' is single, X is O and NH and derivs.; if dotted line between X and CR7R7' is double X is N; R1 is H, (un)substituted alkyl, alkenyl, alkynyl, haloalkyl, cycloalkyl, etc.; R2 is H, halo, (un)substituted alkyl, haloalkyl, etc.; R1R2 together with the atoms they are attached to may form a 5- to 6-membered (hetero)cycloalkenyl ring; R3 is absent, H, (un)substituted alkyl, cycloalkyl, (hetero)aryl, etc.; R4' and R6' are absent when dotted lines to the nitrogens are double bond and R4 and R6 are independently H, alkyl, halo, OH and derivs., NH2 and derivs., etc.; if dotted lines are single bond, R4R4' and R6R6' taken together is =O; R5 is absent, H, alkyl, alkynyl, alkylene-CO2-alkyl, etc.; R7R7' taken together is =O, when dotted line to X is single bond; R7 and R7' is H,

alkyl, and (hetero)aryl; R7' is absent when dotted line to X is double bond; R7 is OH and derivs.; and their pharmaceutically acceptable salts, solvates, esters, and tautomers are claimed. Example compound II was prepared by cyclization of Me propionylacetate with barbituric acid. All the invention compds. were evaluated for their nicotinic acid receptor agonistic activity. From the assay, it was determined that several compds. exhibited cAMP EC50 value of 100 nM or less.

L5 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:607322 CAPLUS
DOCUMENT NUMBER: 145:241274
TITLE: The effects of a novel phosphodiesterase 7A and -4 dual inhibitor, YM-393059, on T-cell-related cytokine production in vitro and in vivo
AUTHOR(S): Yamamoto, Satoshi; Sugahara, Shingo; Naito, Ryo; Ichikawa, Atsushi; Ikeda, Ken; Yamada, Toshimitsu; Shimizu, Yasuaki
CORPORATE SOURCE: Pharmacology Research Laboratories, Astellas Pharma Inc., Ibaraki, 305-8585, Japan
SOURCE: European Journal of Pharmacology (2006), 541(1-2), 106-114
CODEN: EJPHAZ; ISSN: 0014-2999
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB YM-393059, (±)-N-(4,6-dimethylpyrimidin-2-yl)-4-[2-(4-methoxy-3-methylphenyl)-5-(4-methylpiperazin-1-yl)-4,5,6,7-tetrahydro-1H-indol-1-yl]benzenesulfonamide difumarate, is a novel phosphodiesterase (PDE) inhibitor that inhibited the PDE7A isoenzyme with a high potency (IC50 = 14 nM) and PDE4 with a moderate potency (IC50 = 630 nM). In a cell-based assay, YM-393059 was found to inhibit anti-CD3 antibody, Staphylococcal enterotoxin B, and phytohaemagglutinin-induced interleukin (IL)-2 production in mouse splenocytes with IC50 values ranging from 0.48 to 1.1 μM. It also inhibited anti-CD3 antibody-induced interferon (IFN)-γ and IL-4 production in splenocytes with IC50 values of 1.8 and 2.8 μM, resp. YM-393059's inhibition of anti-CD3 antibody-stimulated cytokine (IL-2, IFN-γ, and IL-4) production was 20- to 31-fold weaker than that of YM976, a selective PDE4 inhibitor. However, orally administered YM-393059 and YM976 inhibited anti-CD3 antibody-induced IL-2 production equipotently in mice. In addition, YM-393059 inhibited lipopolysaccharide-induced tumor necrosis factor-α production in vivo more potently than IL-2 (ED50 values of 2.1 mg/kg and 74 mg/kg). In contrast to YM976, YM-393059 did not shorten the duration of α2-adrenoceptor agonist-induced sleep in mice, which is a model for the assessment of the typical side effects caused by PDE4 inhibitors, nausea and emesis. YM-393059 is a novel and attractive compound for the treatment of a wide variety of T-cell-mediated diseases.
REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:447673 CAPLUS
DOCUMENT NUMBER: 143:20875
TITLE: Differentially expressed gene profile for diagnosing and treating mental disorders
INVENTOR(S): Akil, Huda; Atz, Mary; Bunney, William E., Jr.; Choudary, Prabhakara V.; Evans, Simon J.; Jones, Edward G.; Li, Jun; Lopez, Juan F.; Myers, Richard; Thompson, Robert C.; Tomita, Hiroaki; Vawter, Marquis P.; Watson, Stanley

PATENT ASSIGNEE(S): The Board of Trustees of the Leland Stanford Junior University, USA
SOURCE: PCT Int. Appl., 226 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005046434	A2	20050526	WO 2004-US36784	20041105
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US 2005209181	A1	20050922	US 2004-982556	20041104
AU 2004289247	A1	20050526	AU 2004-289247	20041105
CA 2543811	A1	20050526	CA 2004-2543811	20041105
EP 1680009	A2	20060719	EP 2004-800741	20041105
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PRIORITY APPLN. INFO.:

US 2003-517751P	P	20031105
US 2004-982556	A	20041104
WO 2004-US36784	W	20041105

AB The present invention provides methods for diagnosing mental disorders (e.g., psychotic disorders such as schizophrenia). The present invention uses DNA microarray anal. to demonstrate differential expression of genes in selected regions of post-mortem brains from patients diagnosed with mental disorders in comparison with normal control subjects. The invention also provides methods of identifying modulators of such mental disorders as well as methods of using these modulators to treat patients suffering from such mental disorders.

L5 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:78243 CAPLUS
DOCUMENT NUMBER: 142:155827
TITLE: Preparation of N-(cis-4-aminocyclohexyl)-2-(benzothienyloxy)nicotinamide derivatives as inhibitors of 3',5'-cyclic nucleotide phosphodiesterase 4 (PDE4)
INVENTOR(S): Smith, Mya Coral Helen; Watson, Christine Anne Louise
PATENT ASSIGNEE(S): Pfizer Inc, UK
SOURCE: U.S. Pat. Appl. Publ., 23 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005020639	A1	20050127	US 2004-896112	20040720
US 7132435	B2	20061107		
CA 2536383	A1	20050203	CA 2004-2536383	20040713

WO 2005009438 A1 20050203 WO 2004-IB2370 20040713
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EP 1653958 A1 20060510 EP 2004-744029 20040713
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BR 2004012861 A 20061003 BR 2004-12861 20040713
JP 2006528658 T 20061221 JP 2006-521683 20040713
MX 2006PA01038 A 20060424 MX 2006-PA1038 20060125
US 2007066645 A1 20070322 US 2006-555931 20061102
PRIORITY APPLN. INFO.: GB 2003-17471 A 20030725
US 2003-497088P P 20030822
WO 2004-IB2370 W 20040713
US 2004-896112 A3 20040720
OTHER SOURCE(S): CASREACT 142:155827; MARPAT 142:155827
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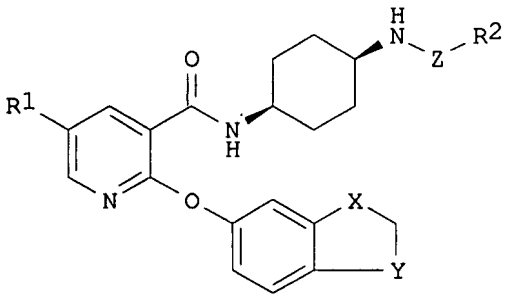


I

AB This invention relates to nicotinamide derivs. of general formula (I) [R1 = H, halo, C1-4 alkyl; X = CH2, Y = S; or X = S and Y = CH2; Z = CO, SO2; R2 = each (un)substituted Ph, benzyl, naphthyl, heteroaryl or C3-8 cycloalkyl] or pharmaceutically acceptable salts or solvates thereof. These compds. are inhibitors of 3',5'-cyclic nucleotide phosphodiesterases (PDEs), i.e., PDE4A, PDE4B, PDE4C, and PDE4D which are isoforms or subtypes of the PDE4 isoenzyme family. They are particularly useful for the treatment of a great number of inflammatory, respiratory, and allergic diseases, disorders or conditions and for wounds and some of them are in clin. development mainly for treatment of asthma, chronic obstructive lung disease (COPD), bronchitis, and emphysema. Thus, cis-N-(4-aminocyclohexyl)-2-(2,3-dihydrobenzo[b]thiophen-6-yloxy)-5-fluoronicotinamide (150 mg, 0.39 mmol), imidazo[1,2-a]pyridine-8-carboxylic acid (87 mg, 0.43 mmol), 1-hydroxybenzotriazole hydrate (58 mg, 0.43 mmol), 1-(3-dimethylaminopropyl)-3-ethylcarbodiimide hydrochloride (82 mg, 0.43 mmol) and 4-methylmorpholine (47 μL, 0.43 mmol) were dissolved in CH2Cl2 (20 mL) and the reaction mixture was stirred at room temperature for 18 h and was concentrated in vacuo. The residue was dissolved in DMF (10 mL) and stirred at room temperature for 18 h to give, after workup and silica gel chromatog., 130 mg (63%) imidazo[1,2-a]pyridine-8-carboxylic acid [cis-4-[[[2-[(2,3-dihydrobenzo[b]thiophen-6-yl)oxy]-5-fluoropyridin-3-yl]carbonyl]amino]-cyclohexyl]amide (II). Antiinflammatory properties of the nicotinamide

derivs. I were demonstrated by their ability to inhibit TNFα release from human peripheral blood mononuclear cells. II showed IC50 of 0.6 nM in the above assay.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:60760 CAPLUS
Correction of: 2004:1036573

DOCUMENT NUMBER: 142:153477
Correction of: 142:16776

TITLE: Gene expression profiles and biomarkers for the detection of Chagas disease and other disease-related gene transcripts in blood

INVENTOR(S): Liew, Choong-Chin

PATENT ASSIGNEE(S): Chondrogene Limited, Can.

SOURCE: U.S. Pat. Appl. Publ., 154 pp., Cont.-in-part of U.S. Ser. No. 802,875.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 33

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004241729	A1	20041202	US 2004-813097	20040330
US 2004014059	A1	20040122	US 2002-268730	20021009
US 2007031841	A1	20070208	US 2003-601518	20030620
US 2006134635	A1	20060622	US 2004-802875	20040312
US 2005191637	A1	20050901	US 2004-803737	20040318
US 2005196762	A1	20050908	US 2004-803759	20040318
US 2005196763	A1	20050908	US 2004-803857	20040318
US 2005196764	A1	20050908	US 2004-803858	20040318
US 2005208505	A1	20050922	US 2004-803648	20040318
PRIORITY APPLN. INFO.:			US 1999-115125P	P 19990106
			US 2000-477148	B1 20000104
			US 2002-268730	A2 20021009
			US 2003-601518	A2 20030620
			US 2004-802875	A2 20040312
			US 2001-271955P	P 20010228
			US 2001-275017P	P 20010312
			US 2001-305340P	P 20010713
			US 2002-85783	A2 20020228

AB The present invention is directed to detection and measurement of gene transcripts and their equivalent nucleic acid products in blood. Specifically provided is anal. performed on a drop of blood for detecting, diagnosing, and monitoring diseases, and in particular Chagas disease, using gene-specific and/or tissue-specific primers. Affymetrix Human Genome U133 and ChondroChip microarrays were used to detect differentially expressed gene transcripts in hypertension, obesity, allergy, systemic steroids, coronary artery disease, diabetes type 2, hyperlipidemia, lung disease, bladder cancer, rheumatoid arthritis, osteoarthritis, liver cancer, schizophrenia, Chagas disease, asthma, and manic depression syndrome. The present invention describes methods by which delineation of the sequence and/or quantitation of the expression levels of disease-specific genes allows for an immediate and accurate diagnostic/prognostic test for disease or to assess the effect of a particular treatment regimen. [This abstract record is one of 3 records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.].

L5 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:413097 CAPLUS
DOCUMENT NUMBER: 140:402343
TITLE: Diagnostics, drug screening and therapeutics for diseases associated with human phosphodiesterase 4A (PDE4A)
INVENTOR(S): Golz, Stefan; Brueggemeier, Ulf; Geerts, Andreas
PATENT ASSIGNEE(S): Bayer Healthcare A.-G., Germany
SOURCE: PCT Int. Appl., 132 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004042076	A2	20040521	WO 2003-EP11879	20031025
WO 2004042076	A3	20041014		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003274082	A1	20040607	AU 2003-274082	20031025

PRIORITY APPLN. INFO.: EP 2002-24994 A 20021108
WO 2003-EP11879 W 20031025

AB The invention provides a human PDE4A which is associated with the disorders of the peripheral and central nervous system, cardiovascular diseases, hematol. diseases, inflammation, gastroenterol. diseases and endocrinol. diseases. The cDNA sequence and the encoded amino acid sequence of PDE4A are disclosed. The expression profile of PDE4A in various human tissues is shown. The invention also provides assays for the drug screening and identification of compds. useful in the treatment or prevention of disorders of the peripheral and central nervous system, cardiovascular diseases, hematol. diseases, inflammation, gastroenterol. diseases and endocrinol. diseases. The invention also features compds. which bind to and/or activate or inhibit the activity of PDE4A as well as pharmaceutical compns. comprising such compds.

L5 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:388025 CAPLUS
DOCUMENT NUMBER: 140:385801
TITLE: KF19514, a phosphodiesterase 4 and 1 inhibitor, inhibits TNF-α-induced GM-CSF production by a human bronchial epithelial cell line via inhibition of PDE4
AUTHOR(S): Sasaki, K.; Manabe, H.
CORPORATE SOURCE: Pharmaceutical Research Institute, Kyowa Hakko Kogyo Co., Ltd., Shizuoka, 411-8731, Japan
SOURCE: Inflammation Research (2004), 53(1), 31-37
CODEN: INREFB; ISSN: 1023-3830
PUBLISHER: Birkhaeuser Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Bronchial epithelium plays an important role in the regulation of inflammatory reactions in the airways. We investigated the effect of KF19514, a phosphodiesterase (PDE) 4 and 1 inhibitor

, on granulocyte-macrophage colony-stimulating factor (GM-CSF) production by a human bronchial epithelial cell line, BEAS-2B. BEAS-2B cells were stimulated with the tumor necrosis factor-α (TNF-α) and various concns. of test agents for 48 h. Supernatants were assayed for GM-CSF by using an ELISA. In addition, intracellular cAMP levels were measured in the presence of various agents. KF19514 significantly inhibited the release of GM-CSF by BEAS-2B cells in a concentration-dependent manner. The other PDE4 inhibitors and cAMP-elevating agents also inhibited the GM-CSF production In the BEAS-2B cells, KF19514 and PDE4 inhibitors concentration-dependently increased intracellular cAMP levels. The inhibitory effect of KF19514 on the GM-CSF production was significantly reduced by a cAMP-dependent protein kinase A (PKA) inhibitor, H89. Other PDE isoenzyme inhibitors did not inhibit the GM-CSF production by BEAS-2B cells, and did not elevate the intracellular cAMP levels. These results indicate that KF19514 and PDE4 inhibitors reduce TNF-α-induced GM-CSF production of BEAS-2B cells via a cAMP-dependent pathway. PDE4 may be a possible target for the regulation of cytokine production in epithelial cells.

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:130977 CAPLUS

DOCUMENT NUMBER: 140:281023

TITLE: Anti-inflammatory potential of the selective phosphodiesterase 4 inhibitor N-(3,5-dichloro-pyrid-4-yl)-[1-(4-fluorobenzyl)-5-hydroxy-indole-3-yl]-glyoxylic acid amide (AWD 12-281), in human cell preparations

AUTHOR(S): Draheim, Regina; Egerland, Ute; Rundfeldt, Chris

CORPORATE SOURCE: Departments of Pharmacology and Molecular Biology, Elbion AG, Radebeul, Germany

SOURCE: Journal of Pharmacology and Experimental Therapeutics (2004), 308(2), 555-563
CODEN: JPETAB; ISSN: 0022-3565

PUBLISHER: American Society for Pharmacology and Experimental Therapeutics

DOCUMENT TYPE: Journal

LANGUAGE: English

AB AWD 12-281 is a potent (IC50 = 9.7 nM) and highly selective inhibitor of the phosphodiesterase 4 (PDE4) isoenzyme with low affinity to the high-affinity rolipram-binding site. The compound was optimized for topical treatment of asthma, chronic obstructive pulmonary disease (COPD), and allergic rhinitis. The aim of the present study was to assess the effect of AWD 12-281 in human inflammatory cells. Peripheral blood mononuclear cells (PBMCs), diluted whole blood, and human nasal polyp cells derived from surgically resected nasal polyps from patients with polyposis comprise sources of target tissue cells that can be used to predict anti-inflammatory effects in patients. AWD 12-281 was capable of suppressing the production of cytokines in stimulated PBMCs: interleukin-2 (IL-2, phytohemagglutinin stimulation), IL-5 (Con A stimulation), IL-5 and IL-4 (anti-CD3/anti-CD28 co-stimulation), and lipopolysaccharide-stimulated release of tumor necrosis factor α (TNFα). The corresponding values for half-maximum inhibition, EC50, for AWD 12-281 were within a narrow range (46-121 nM). Comparing the effect of AWD 12-281 with roflumilast, cilomilast (SB 207499), rolipram (RPR-73401), and 1-(3-nitrophenyl)-3-(4-pyridylmethyl)pyrido[2,3-d]pyrimidin-2,4(1H,3H)-dione (RS-25344-000), it could be shown that the PDE4 inhibitory activity was closely correlated with inhibitory potential as measured by the above-described assays. AWD 12-281 was also shown to suppress TNFα release in dispersed nasal polyps (EC50 = 111 nM) and in diluted

whole blood (EC50 = 934 nM). The reduced activity in human blood may be related to high plasma protein binding. Currently, phase II clin. studies are under way to evaluate the therapeutic potential of AWD 12-281 in asthma, COPD, and allergic rhinitis.

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:601116 CAPLUS
DOCUMENT NUMBER: 137:351413
TITLE: Potential role of phosphodiesterase 7 in human T cell function: comparative effects of two phosphodiesterase inhibitors
AUTHOR(S): Nakata, A.; Ogawa, K.; Sasaki, T.; Koyama, N.; Wada, K.; Kotera, J.; Kikkawa, H.; Omori, K.; Kaminuma, O.
CORPORATE SOURCE: Discovery Research Laboratory, Tanabe Seiyaku Co. Ltd., Saitama, Japan
SOURCE: Clinical and Experimental Immunology (2002), 128(3), 460-466.
CODEN: CEXIAL; ISSN: 0009-9104
PUBLISHER: Blackwell Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Even though the existence of phosphodiesterase (PDE) 7 in T cells has been proved, the lack of a selective PDE7 inhibitor has confounded an accurate assessment of PDE7 function in such cells. In order to elucidate the role of PDE7 in human T cell function, the effects of two PDE inhibitors on PDE7A activity, cytokine synthesis, proliferation and CD25 expression of human peripheral blood mononuclear cells (PBMC) were determined Recombinant human PDE7A was obtained and subjected to cAMP-hydrolysis assay. PBMC of Dermatophagoides farinae mite extract (Df)-sensitive donors were stimulated with the relevant antigen or an anti-CD3 monoclonal antibody (MoAb). PBMC produced IL-5 and proliferated in response to stimulation with Df, while stimulation with anti-CD3 MoAb induced CD25 expression and mRNA synthesis of IL-2, IL-4 and IL-5 in peripheral T cells. A PDE inhibitor, T-2585, which suppressed PDE4 isoenzyme with high potency (IC50 = 0.00013 μm) and PDE7A with low potency (IC50 = 1.7 μm) inhibited cytokine synthesis, proliferation and CD25 expression in the dose range at which the drug suppressed PDE7A activity. A potent selective inhibitor of PDE4 (IC50 = 0.00031 μM), RP 73401, which did not effectively suppress PDE7A (IC50 > 10 μM), inhibited the Df- and anti-CD3 MoAb-stimulated responses only weakly, even at 10 μM. PDE7 may play a critical role in the regulation of human T cell function, and thereby selective PDE7 inhibitors have the potential to be used to treat immunol. and inflammatory disorders.

REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:594822 CAPLUS
DOCUMENT NUMBER: 137:154857
TITLE: Preparation of nicotinamide biaryl derivatives as inhibitors of PDE4 isozymes
INVENTOR(S): Chambers, Robert James; Magee, Thomas Victor; Marfat, Anthony
PATENT ASSIGNEE(S): Pfizer Products Inc., USA
SOURCE: PCT Int. Appl., 224 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2002060875	A1	20020808	WO 2001-IB2341		20011206
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
CA 2436535	A1	20020808	CA 2001-2436535		20011206
AU 2002220966	A1	20020812	AU 2002-220966		20011206
EP 1355884	A1	20031029	EP 2001-273556		20011206
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
EE 200300360	A	20031215	EE 2003-360		20011206
BR 2001016852	A	20040225	BR 2001-16852		20011206
HU 2004000637	A2	20040628	HU 2004-637		20011206
JP 2004520386	T	20040708	JP 2002-561026		20011206
CN 1518542	A	20040804	CN 2001-823071		20011206
NZ 526453	A	20050128	NZ 2001-526453		20011206
US 2002193612	A1	20021219	US 2002-62813		20020131
US 6649633	B2	20031118			
IN 2003MN00608	A	20050318	IN 2003-MN608		20030617
ZA 2003004894	A	20040624	ZA 2003-4894		20030624
US 2004048903	A1	20040311	US 2003-613988		20030702
US 6953810	B2	20051011			
BG 108038	A	20040730	BG 2003-108038		20030728
NO 2003003397	A	20030919	NO 2003-3397		20030730
MX 2003PA06887	A	20031113	MX 2003-PA6887		20030730
PRIORITY APPLN. INFO.:			US 2001-265492P	P	20010131
			WO 2001-IB2341	W	20011206
			US 2002-62813	A3	20020131

OTHER SOURCE(S): MARPAT 137:154857
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compds. [I; g = 0-1; j = 0-1; provided that when j = 0, n must be 2; k = 0-1; m = 0-2; n = 1-2; W1 = 0, SOt (t = 0-2), NR3; W2 = OCR9R10, or absent; Y = CR1, NOk (k = 0-1); R9, R10 = H, F, CF3, etc.; or R9 and R10 are taken together, but only in the case where m = 1, to form a spiro moiety; R7, R8 have the same meaning as R9, R10 except that one of them must be H; R1, R2 = H, F, Cl, etc.; R3 = H, alkyl, Ph, etc.; R4-R6 = H, F, Cl, etc.; Q1 = Ph, benzodioxyl, etc.; Q2 = biaryl moiety], useful as inhibitors of PDE4 in the treatment of diseases regulated by the activation and degranulation of eosinophils, especially asthma, chronic bronchitis, and chronic obstructive pulmonary disease, were prepared E.g., a multi-step synthesis of the amide II, starting from Me 3-bromobenzoate and 4-formylbenzeneboronic acid, was given. Compds. I showed anti-inflammatory activity at 0.0001 μM to 20.0 μM in whole blood assay for LTE4.

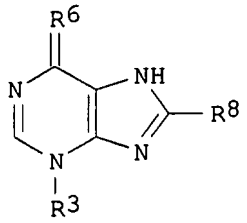
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 13 OF 15 CAPLUS

ACCESSION NUMBER: 2001:136945 CAPLUS
DOCUMENT NUMBER: 134:193441
TITLE: Preparation of hypoxanthines and thiohypoxanthines as phosphodiesterase IV inhibitors
INVENTOR(S): Chasin, Mark; Hofer, Peter; Cavalla, David
PATENT ASSIGNEE(S): Euro-Celtique S.A., Luxembourg
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2001011967	A1	20010222	WO 2000-US21836		20000809
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
CA 2379356	A1	20010222	CA 2000-2379356		20000809
EP 1202628	A1	20020508	EP 2000-953925		20000809
EP 1202628	B1	20041013			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL					
JP 2003506467	T	20030218	JP 2001-516330		20000809
AT 279113	T	20041015	AT 2000-953925		20000809
PRIORITY APPLN. INFO.:			US 1999-148623P	P	19990812
			WO 2000-US21836	W	20000809

OTHER SOURCE(S): MARPAT 134:193441
GI



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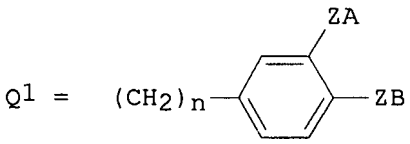

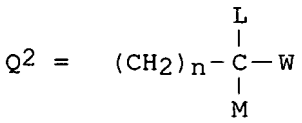

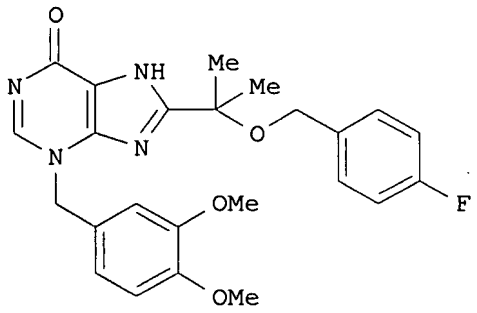

II

AB Title compds. (I) [wherein R3 and R8 = independently (cyclo)alkyl, alkenyl, alkynyl, Q1, or Q2; R6 = S or O; n = 0-1; Z = a bond, CH2, NH, O, or S; A and B can form a ring by adding 1-3 CH2 groups when Z = CH2, NH, O or S; and A and B are not in a ring when Z = a bond, wherein A and B = independently H, halo, (cyclo)alkyl, (cyclo)alkoxy, OH, or (un)substituted Ph, benzyl, or benzyloxy; L and M = independently H or Me; W = Q1, OH, (hetero)aryl, heterocyclyl, or (un)substituted benzyloxy] were prepared as selective phosphodiesterase (PDE) IV inhibitors. For example, amidation of 2-(4-fluorobenzyloxy)-2-methylpropionyl chloride with 5,6-diamino-1-(3,4-dimethoxybenzyl)-2-thiouracil using TEA in THF (20.4%), followed by cyclization with NaOH to form the 2-thioxanthine (79.1%) and treatment with Raney nickel in 1-propanol (67.2%), afforded the hypoxanthine (II). In assays measuring isolated PDE isoenzyme activity, II selectively inhibited PDE IV compared to PDE III and PDE V with IC50 values of 1.079 μM, 69.62 μM, and 35.80 μM, resp. As a result, I are expected to induce the desirable anti-asthmatic effects associated with PDE IV inhibition without causing the undesirable cardiovascular stimulation associated with PDE III inhibition (no data). I are useful in the treatment of asthma, allergies, inflammation, depression, dementia, and other disease states associated with abnormally high physiol. levels of cytokine (no data).

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:36647 CAPLUS

DOCUMENT NUMBER: 130:222068

TITLE: Phosphodiesterase 4B gene transcription is activated by lipopolysaccharide and inhibited by interleukin-10 in human monocytes

AUTHOR(S): Ma, Dongmin; Wu, Ping; Egan, Robert W.; Billah, M. Motasim; Wang, Peng

CORPORATE SOURCE: Allergy Department, Schering-Plough Research Institute, Kenilworth, NJ, USA

SOURCE: Molecular Pharmacology (1999), 55(1), 50-57

CODEN: MOPMA3; ISSN: 0026-895X
PUBLISHER: American Society for Pharmacology and Experimental Therapeutics
DOCUMENT TYPE: Journal
LANGUAGE: English

AB There are 4 different genes encoding the cAMP-specific phosphodiesterase (PDE4) isoenzymes (A, B, C, and D). CAMP has been the only agent known to induce PDE4 gene expression. Here, the authors demonstrate, for the first time, that lipopolysaccharide (LPS) selectively stimulated PDE4B mRNA production in human monocytes. The LPS stimulation occurred very rapidly (in 30-45 min) and in a dose-dependent manner (0.01-100 ng/mL). The authors also demonstrate that LPS induction of PDE4B mRNA expression was inhibited strongly by interleukin (IL)-10. The inhibition with IL-10 was dose-dependent (0.1-10 ng/mL). IL-4 also inhibited the LPS induction, but to a lesser extent than IL-10. PDE4B mRNA expression was also stimulated by dibutyryl-cAMP. Interestingly, unlike LPS induction, the dibutyryl-cAMP induction of PDE4B mRNA expression was not inhibited by IL-10. By performing nuclear run-on and mRNA stability assays, the authors demonstrate further that IL-10 inhibited LPS-stimulated PDE4B mRNA synthesis by abolishing the gene transcription rather than by enhancing mRNA degradation Thus, PDE4B, as the only LPS-inducible PDE4 subtype, may be an appropriate target for discovering anti-inflammatory drugs.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:981130 CAPLUS
DOCUMENT NUMBER: 124:27955
TITLE: Effects of nonselective and isoenzyme selective cyclic nucleotide phosphodiesterase inhibitors on antigen-induced cytokine gene expression in peripheral blood mononuclear cells
AUTHOR(S): Essayan, David M.; Huang, Shau-Ku; Kagey-Sobotka, Anne; Lichtenstein, M.
CORPORATE SOURCE: Division of Clinical Immunology, Johns Hopkins Asthma and Allergy Center, Baltimore, MD, USA
SOURCE: American Journal of Respiratory Cell and Molecular Biology (1995), 13(6), 692-702
CODEN: AJRBEL; ISSN: 1044-1549
PUBLISHER: American Lung Association
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Cyclic nucleotide phosphodiesterase (PDE) enzymes may participate in regulation of the inflammatory response through their effects on second messengers. Here, the authors investigated the role of nonselective and isoenzyme selective PDE inhibitors in altering the antigen-driven cytokine gene expression of peripheral blood mononuclear cells (PBMCs) from atopic individuals. Ragweed and tetanus toxoid were used as model antigens. The nonselective PDE inhibitor, 3-isobutyl-1-methylxanthine (IBMX), and the selective PDE4 inhibitor, rolipram, markedly suppressed interleukin-5 (IL-5) and interferon γ (IFNγ) gene expression in both antigen-driven systems. Gene expression for IL-4 was unaffected by these agents in the ragweed-driven system. Message for IL-4 could not be detected in the tetanus toxoid-driven system, despite the use of a quant., competitive reverse transcription-polymerase chain reaction (RT-PCR) assay sensitive to <10 fg of target template. The PDE3 inhibitor, siguazodan, was ineffective in downregulating gene expression for the proinflammatory cytokines assay; when used in combination with the PDE4 inhibitor, the PDE3 inhibitor provided no increase in efficacy over that seen with the PDE4

inhibitor alone. Gene expression for the A and B isoforms of the PDE4 in PBMCs was unaffected by antigen stimulation or treatment with the PDE4 inhibitor; however, differences in expression of these 2 isoforms were apparent when a variety of immune cell lines were studied. These data support the hypothesis that the primary anti-inflammatory target for PDE inhibition in PBMCs is the PDE4. Furthermore, the expression of various isoforms of this enzyme may differ between immune cell types. Finally, PDE4 isoform expression in PBMCs is independent of treatment with an isoenzyme selective inhibitor.

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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Nov 16, 2007 (20071116/UP).

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     (FILE 'HOME' ENTERED AT 08:22:48 ON 21 NOV 2007)

     FILE 'CAPLUS' ENTERED AT 08:23:10 ON 21 NOV 2007
L1         28110 S PHOSPHODIESTERASE
L2          1762 S L1 AND INFLAMMATORY
L3          1674 S L2 AND INHIBIT?
L4           151 S L3 AND ISOENZYM?
L5            15 S L4 AND ASSAY?

     FILE 'STNGUIDE' ENTERED AT 08:26:07 ON 21 NOV 2007

=> log y
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.12      55.18

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)              SINCE FILE      TOTAL
                                                           ENTRY    SESSION
CA SUBSCRIBER PRICE                                         0.00     -11.70

STN INTERNATIONAL LOGOFF AT 08:27:25 ON 21 NOV 2007
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